

CLAIM AMENDMENTS

1-111. (canceled)

112. A composition for promoting muscle carnitine accumulation in human skeletal muscle, the composition comprising L-carnitine and an agent to increase blood plasma/serum insulin concentration, and wherein the amount by weight of said agent is at least ten times the amount by weight of said L-carnitine.

113. (new) A composition according to claim 112 wherein the agent is operable to increase sodium dependent carnitine uptake into skeletal muscle.

114. (new) A composition according to claim 112 wherein the agent is operable to increase insulin activity in skeletal muscle.

115. (new) A composition according to claim 112 wherein the agent comprises a carbohydrate and/or an amino acid and/or a protein.

116. (new) A composition according to claim 115 wherein the agent is a carbohydrate.

117. (new) A composition according to claim 115 wherein the carbohydrate is a simple carbohydrate.

118. (new) A composition according to claim 116 wherein the carbohydrate is a simple sugar.

119. (new) A composition according to claim 117 wherein the carbohydrate comprises glucose, sucrose, and/or fructose.

120. (new) A composition according to claim 112 wherein the amount by weight of the agent is between 10 and 150 times the amount by weight of said L-carnitine.

121. (new) A composition according to claim 112 wherein the amount by weight of the agent is between 10 and 95 times the amount by weight of said L-carnitine.
122. (new) A composition according to claim 112 wherein the amount by weight of the agent is between 10 and 40 times the amount by weight of said L-carnitine.
123. (new) A composition according to claim 112 comprising 0.25g to 3g L-carnitine and between 2.5g and 450g of the agent.
124. (new) A composition according to claim 112 comprising 0.25g to 3g L-carnitine and between 2.5g and 285g of the agent.
125. (new) A composition according to claim 112 comprising 0.25g to 3g L-carnitine and between 2.5g and 120g of the agent.
126. (new) A composition according to claim 112 in the form of a solution.
127. (new) A composition according to claim 112 in the form of an aqueous solution.
128. (new) A composition for promoting muscle carnitine accumulation in human skeletal muscle, the composition comprising 0.25g to 3g of L-carnitine and between 2.5g and 450g of an agent to increase blood plasma/serum insulin concentration.
129. (new) A composition according to claim 128 wherein the agent is operable to increase sodium dependent carnitine uptake into skeletal muscle.
130. (new) A composition according to claim 128 wherein the agent is operable to increase insulin activity in skeletal muscle.

131. (new) A composition according to claim 128 wherein the agent comprises a carbohydrate and/or an amino acid and/or a protein.

132. (new) A composition according to claim 131 wherein the agent is a carbohydrate.

133. (new) A composition according to claim 131 wherein the carbohydrate is a simple carbohydrate.

134. (new) A composition according to claim 132 wherein the carbohydrate is a simple sugar.

135. (new) A composition according to claim 133 wherein the carbohydrate comprises glucose, sucrose, and/or fructose.

136. (new) A composition according to claim 128 wherein the amount by weight of the agent is between 10 and 150 times the amount by weight of said L-carnitine.

137. (new) A composition according to claim 128 wherein the amount by weight of the agent is between 10 and 95 times the amount by weight of said L-carnitine.

138. (new) A composition according to claim 128 wherein the amount by weight of the agent is between 10 and 40 times the amount by weight of said L-carnitine.

139. (new) A composition according to claim 128 comprising 0.25g to 3g L-carnitine.

140. (new) A composition according to claim 128 comprising 0.25g to 3g L-carnitine and between 2.5g and 285g of the agent.

141. (new) A composition according to claim 128 comprising 0.25g to 3g L-carnitine and between 2.5g and 120g of the agent.

142. (new) A composition according to claim 128 in the form of a solution.

143. (new) A composition according to claim 128 in the form of an aqueous solution.

144. (new) A composition for increasing the carnitine content of human skeletal muscle, the composition comprising L-carnitine and an agent to increase blood plasma/serum insulin concentration, wherein the agent is present in an amount sufficient to increase blood plasma/serum insulin concentration above 50 mU/l.

145. (new) A composition according to claim 144 wherein the agent is operable to increase sodium dependent carnitine uptake into skeletal muscle.

146. (new) A composition according to claim 144 wherein the agent is operable to increase insulin activity in skeletal muscle.

147. (new) A composition according to claim 144 wherein the agent comprises a carbohydrate and/or an amino acid and/or a protein.

148. (new) A composition according to claim 147 wherein the agent is a carbohydrate.

149. (new) A composition according to claim 147 wherein the carbohydrate is a simple carbohydrate.

150. (new) A composition according to claim 148 wherein the carbohydrate is a simple sugar.

151. (new) A composition according to claim 149 wherein the carbohydrate comprises glucose, sucrose, and/or fructose.

152. (new) A composition according to claim 144 wherein the amount by weight of the agent is between 10 and 150 times the amount by weight of said L-carnitine.

153. (new) A composition according to claim 144 wherein the amount by weight of the agent is between 10 and 95 times the amount by weight of said L-carnitine.

154. (new) A composition according to claim 144 wherein the amount by weight of the agent is between 10 and 40 times the amount by weight of said L-carnitine.

155. (new) A composition according to claim 144 comprising 0.25g to 3g L-carnitine and between 2.5g and 450g of the agent.

156. (new) A composition according to claim 144 comprising 0.25g to 3g L-carnitine and between 2.5g and 285g of the agent.

157. (new) A composition according to claim 144 comprising 0.25g to 3g L-carnitine and between 2.5g and 120g of the agent.

158. (new) A composition according to claim 144 in the form of a solution.

159. (new) A composition according to claim 144 in the form of an aqueous solution.

160. (new) A method of increasing carnitine retention in human skeletal muscle, the method comprising administering a composition according to claim 112.

161. (new) A prepared human dose comprising a composition according to claim 112.

162. (new) A method of treatment of carnitine deficiency in the skeletal muscle of a human subject, comprising administering to the subject a composition according to claim 112.